

## PERPENDICULAR MAGNETIC RECORDING MEDIUM AND ITS PRODUCTION

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### Abstract

**PROBLEM TO BE SOLVED:** To decrease medium noises and to improve the dependence of reproduction output voltage on a recording density.

**SOLUTION:** This recording medium is constituted by forming a Cr film 14, a ground surface soft magnetic film 16 and a perpendicularly magnetized film 18 in this order on a substrate 12. This ground surface soft magnetic film 16 is, for example, an FeSiAl film. This perpendicularly magnetized film 18 is, for example, a CoCrTa film. The surface smoothness of the ground surface soft magnetic film 16 and the surface smoothness and perpendicular orientability of the perpendicularly magnetized film 18 are improved by the effect of the Cr film 14. The improvement in the perpendicular orientability of the perpendicularly magnetized film 18 leads to a decrease of initial layers, by which the medium noises are decreased and the dependence of the reproducing output voltage on the recording density is improved. The improvement in the surface smoothness of the perpendicularly magnetized film 18 leads to an improvement in the sliding characteristic of a recording and reproducing head, by which the medium noises are decreased as well.

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